BIREME / PAHO / WHO

Latin American and Caribbean Center on Health Sciences Information

IAH User's Manual

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IAH User's Manual

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BIREME / PAHO / WHO

Latin American and Caribbean Center on Health Sciences Information

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Abbreviations used

- **ABNT**. Associação Brasileira de Normas Técnicas [Brazilian Association of Technical Standards].
- **ANSI**. American National Standards Institute.
- **ASCII**. American Standard Code for Information Interchange.
- **BIREME**. Latin American and Caribbean Center on Health Sciences Information.
- **BVS**. Biblioteca Virtual em Saúde (*see* VHL).
- **CGI**. Common Gateway Interface.
- **DeCS**. Health Sciences Descriptors.
- **FST**. Field Selection Table.
- **HTML**. HyperText Markup Language.
- **HTTP**. HyperText Transfer Protocol.

- **iAH**. Interface for Access on Health Information.
- **ISBN**. International Standard Book Number.
- **ISO**. International Organization for Standardization.
- **LILACS**. Latin American and Caribbean Health Sciences Literature.
- **LILDBI-WEB**. LILACS Bibliographic Description and Indexing - Web Version.
- **MEDLINE**. Medical Literature Analysis and Retrieval System Online.
- **MeSH**. Medical Subject Headings.
- **NLM**. National Library of Medicine.
- **PAHO**. Pan American Health Organization.
- **PDF**. Portable Document Format.
- **SCAD**. Serviço Cooperativo de Acesso ao Documento [Cooperative Service for Accessing Documents].
- **SciELO**. Scientific Electronic Library Online.
- **SeCS**. Serials in Health Sciences.
- **SGML**. Standard Generalized Markup Language.
- **UMLS**. Unified Medical Language System.
- **UNESCO**. United Nations Educational, Scientific and Cultural Organization.
- **URL**. Universal Resource Locator.
- **VHL**. Virtual Health Library.

- **WHO**. World Health Organization.
- **XHTML**. eXtensible HyperText Markup Language.
- **XML**. eXtensible Markup Language.
- **XSL**. eXtensible Stylesheet Language.
- **XSLT**. eXtensible Stylesheet Language Transformations.

How to use this manual

This manual is intended to provide technical information on the installation, setup and maintenance of IAH interface with CDS/ISIS, WinISIS and LILDBI-Web compatible databases.

A minimum knowledge of CDS/ISIS database standard; solid network, web server and internet expertise as well as full domain of operating system used are the basic requirements to the system and/or support analyst that will use this manual.

An abbreviations list, a glossary of associated terminology and a series of appendices complete information in the manual. At the end, a list of bibliographic references to the methodologies and technologies associated to IAH are available.

Beyond the technical information about installing and configuring the interface, there is a chapter dedicated to the use of interface ranging from a simple query to boolean expression queries for accurate results.

1 Preface

1.1 About BIREME

Year after year, BIREME has been following its mission of being a center dedicated to scientific and technical health information for the region of Latin America and the Caribbean. Founded in Brazil in 1967, under the name of Regional Medicine Library (which the acronym BIREME comes from), it has always met the growing demand for up-to-date scientific literature from the Brazilian health systems and the communities of healthcare researchers, professionals and students. Then, in 1982, its name changed to Latin-American and Caribbean Center on Health Sciences Information so as to better express its dedication to the strengthening and expansion of the flow of scientific and technical health information across the region, but kept the acronym.

Networking, based on decentralization, on the development of local capacities, on sharing information resources, on developing cooperative products and services, on designing common methodologies, has always been the foundation of BIREME's technical cooperation work. It has been like this that the center established itself as an international model that fosters professional education with managerial and technical information with the adoption of information and communication paradigms that best meet local needs.

The main foundations that gave origin and which support the existence of BIREME are following:

- ✓ access to scientific and technical health information is essential for the development of health;
- ✓ the need to develop the capacity of Latin American and Caribbean countries to operate their sources of scientific-technical health information in a cooperative and efficient manner;
- ✓ the need to foster the use and to respond to the demands for scientific-technical health information from governments, health systems, educational and research institutions.

BIREME, as a specialized center of the Pan-American Health Organization (PAHO)/ World Health Organization (WHO), coordinates and conducts technical cooperation activities on the management of scientific information and knowledge with the aim of strengthening and expanding the flow of scientific health information in Brazil and in other Latin American and Caribbean countries as a key condition for the development of health, including its planning, management, promotion, research, education, and care.

The agreement that supports BIREME is renewed every five years by the members of the National Advisory Committee of the institution (PAHO, Brazilian Ministry of Health, Brazilian Ministry of Education and Culture, Secretary of Health of the State of São Paulo, and Federal University of São Paulo – Unifesp). The latter provides the physical infrastructure necessary for the establishment of the institution.

In 2004 the institution took on the responsibility of becoming a knowledge-based institution.

1.2 The Virtual Health Library (VHL)

With the rise and consolidation of the internet as the prevailing means of access to information and communication, BIREME's technical cooperation model evolved,

as of 1998, to build and develop the Virtual Health Library (VHL) as a common space for the convergence of the cooperative work of producers, intermediaries, and users of information. The VHL promotes the development of a network of sources of scientific and technical information with universal access on the internet. For the first time there has been a real possibility of equal access to health information.

To BIREME, the Virtual Health Library is a model for the management of information and knowledge, which includes the cooperation and convergence between institutions, systems, networks, and initiatives of producers, intermediaries, and users in the operation of networks of local, national, regional and international information sources favoring open and universal access.

Today, every country in Latin America and the Caribbean (Region) participates either directly or indirectly in the cooperative products and services offered by the VHL, which includes over 1,000 institutions in more than 30 countries.

The VHL is simulated in a virtual space of the internet formed by a collection or network of health information sources in the Region. Users of different levels and locations can interact and navigate in the space of one or many information sources, regardless of where they are. Information sources are generated, updated, stored and operated on the internet by producers, integrators, and intermediaries, in a decentralized manner, following common methodologies for their integration in the VHL.

The VHL organizes information in a structure that integrates and interconnects reference databases, specialist directories, events and institutions, a catalogue of the information resources available on the internet, collections of full texts with a highlight for the SciELO (*Scientific Electronic Library Online*) collection of scientific journals, selective information dissemination services, information sources to support education and decision-making, news, discussion lists, and support to virtual communities. The space of the VHL is, therefore, a dynamic and decentralized network of information sources based on which it is possible to retrieve and extract information and knowledge to support health decision-making processes.

The Virtual Health Library can be visualized as a distributed base of scientific and technical health knowledge that is saved, organized and stored in electronic format in the countries of the Region, universally accessible on the internet and compatible with international databases.

2 Introduction

The Interface for Access to Health Information (IAH) was designed for information retrieval from ISIS databases in an optimum manner over the Internet.

Written in the IsisScript language (the native code of WWWISIS), it was developed for BIREME from 1999, having evolved in conjunction with WWWISIS to support new functions such as the reading of large records (1 Mb), generation of XML content, etc.

IAH can be installed on any PC-compatible that has a web server installed and configured. It has been tested on Internet Information Server (IIS) versions 4 and 5 and on Apache Web Server (Apache) 1.3.xx. The latter was tested exhaustively under Windows and Linux.

WWWISIS is the active component of the interface which gives the IsisScript code multiuser access to the ISIS databases across the Common Gateway Interface (CGI).

IAH comes packaged with the standard version of WWWISIS, with a key size of 10/30. Meanwhile, if the user needs them, other versions can be used (16/60, Lind and FFI).

The availability of the versions mentioned should be checked with Bireme because this change can bring undesirable effects and other implications for the application.

3 Structure of IAH

The IAH interface comprises three different parts, in accordance with the following model:

3.1 Documents area

Primary location of the documents (HTML, javascript, CSS, images, configuration files) of the application and the webserver. Normally called DOCUMENT_ROOT.

3.2 Area of executable scripts

Location of the executable files, programs or scripts of the application. In this area is located the code of the application, written in the language IsisScript (compiled or not) and the WWWISIS program. Normally called CGI-BIN, this area uses the methods and protocols defined for the CGI interface. Its name can vary according to the web server.

3.3 Area of databases

Location of the databases which are used by the application.

Table 1 shows the the correlation between the above areas and the folder names in various webservers:

Area	Server		
	Apache	**IIS**	**OmniHTTPd**
Documents	htdocs	wwwroot	data
CGI	cgi-bin	scripts	cgi-bin
Databases	bases	bases	bases

Table 1: areas for the webserver.

The database directory can be created below whatever directory structure is configured in the file iah.def.

4 Requirements for installation

The person who is going to install IAH needs to have knowledge of the operating system used, such as the file system, local and remote access control, network administration, communication protocols and installation and configuration of the webserver.

The software prerequisite for installation of IAH is a webserver which has a CGI interface, e.g. Apache, IIS or OmniHTTPd.

4.1 About the installation package

The IAH distribution package contains all the files and directories necessary for the interface, but with a small difference between the version for Windows and the version for Linux.

The package for Windows is constructed with WinZip whereas the package for Linux uses the uses the tools tar and gzip for combining and compacting files.

Below each of the primary directories (bases, cgi-bin and htdocs) there is a subdirectory IAH that contains the files of the application proper. The executable of WWWISIS (wxis.exe) for the chosen platform is located in the cgi-bin directory.

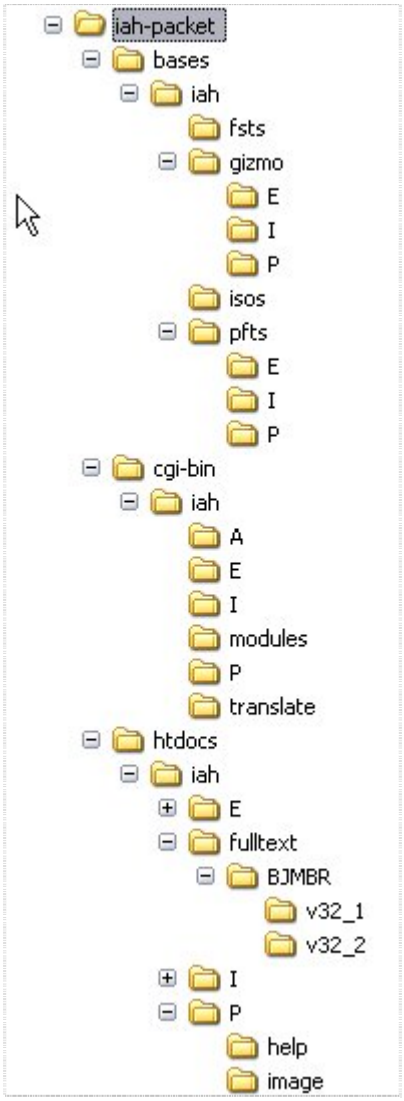


Figure 1: Organization of directories for the Windows and Linux distributions

4.2 Files and directories of the IAH package

4.2.1 BASES/IAH

Below this directory there are four subdirectories: `fsts/`, `isos/`, `gizmos/`, and `pfts/`. Also there are some special files:

- for Windows
  1. setupdb.bat – batch file for the generation of database and inverted file with option for data in ASCII or ANSI codes
  2. inverte-dblil.bat – batch file for generating inverted file of the example LILACS database in ANSI code
  3. inverte-dbsecs.bat – batch file for generating inverted file of the example SECS database in ASCII code
  4. mx.exe – MX utility
- for Linux
  1. setupdb.sh – shell file for the generation of database and inverted file with option for data in ASCII or ANSI codes
  2. inverte-dblil.sh – shell file for generating inverted file of the example LILACS database in ANSI code
  3. inverte-dbsecs.sh – shell file for generating inverted file of the example SECS database in ASCII code
  4. mx – MX utility

In the subdirectories are located the files necessary for carrying out a “standard installation”, with two databases of reduced numbers of records, one using the `Secs` format and the other, `Lilacs`.

In `fsts/` are found the field selection tables for the databases.

In `gizmos/` there are various ISIS databases (.mst, xrf and id files) which complement the interface, the conversion table for characters, gizmo and related tasks.

Finally in `pfts/` are the various display formats for the example databases.

4.2.2 HTDOCS/IAH

This directory contains four subdirectories (`E/`, `I/`, `P/` and `fulltext/`), two database definition files (DBLIL.def and DBSECS.def), a configuration file for IAH (iah.def) and some application files.

In the subdirectory `fulltext/` there are files for providing access to full texts. In each of the subdirectories `E/`, `I/`, and `P/` there are two subdirectories: `image/` and `help/`. In the first are the image files used by the interface such as icons, buttons, banners, logos etc. In the second are the files containing the help texts of the interface in the respective languages in HTML format.

The file iah.htm contains the initial page of the IAH interface after its installation and configuration and allows access to the databases.

4.2.3 CGI-BIN

In this directory is found the executable file of WWWISIS (wxis.exe) for interpreting and executing the application IAH written in IsisScript.

4.2.4 CGI-BIN/IAH

There are six subdirectories (`A/`, `E/`, `I/`, `modules/`, `P/`, `translate/`) and the code of the application (iah.xic).

In the subdirectories of each language are the format files which form the pages of the interface in that language.

The subdirectory modules/ contains optional modules and language extensions that permit the additional use of new functions with more flexibility, as well as customisations.

The subdirectory `translate/` contains a translation tool aimed to help user in translating pages to other languages using batch files, the MX utility and some gizmo files (master files).

5 How to install IAH

To install the IAH interface it is necessary to:

1. create the root structure in which to expand the package, whether in Linux or Windows;
2. download the IAH package for the chosen plataform;
3. expand the package into the appropriate directory;
4. configure the definition files in accordance with the defined location;

In figures 1 and 2 the standard location of the databases can be seen in the directory structure. The name of the database directories and their physical location can be changed by users to adapt to the standard used in their institution. However, it should be noted that there are minimum requirements that must be obeyed for the interface to function correctly.

The principal directory of the interface (or root directory of IAH) is the subdirectory iah/, which should be located below the area designated as DOCUMENT ROOT of the webserver so that it can be accessed from the static pages of the interface, as well as configuration files, the help text, images etc., in each of the available languages.

On the webserver it is necessary to have a directory of CGI scripts which can run WWWISIS (wxis.exe).

6 How to configure IAH

The first task after the expansion of the IAH package is the configuration of the definition file for the interface (iah.def).

6.1 Contents of the file iah.def

IAH.DEF is a text file composed of four sections, whose functions are detailed in table 2.

TITLE OF THE SECTION	DESCRIPTION
[PATH]	Indicates the location of the directories and files of the interface
[APPEARANCE]	Defines settings relating to the appearence of the interface
[HEADER]	Defines images and links for the head of the pages
[IAH]	Indicates the e-mail address of the person responsible and some configuration options of the interface

Table 2: Sections and functions of IAH.DEF.

6.1.1 PATH section

The definitions contained in this section are:

- PATH_DATA=

Indicates the path relative to the a the root of the application in the webserver in which the static pages are located (**IAH**)

- PATH_CGI-BIN=

  Indicates the absolute path of the directory for CGI scripts (e.g. **/home/user/cgi-bin/iah**)

- PATH_DATABASE=

  Indicates the absolute path of the directory for databases on the server (e.g. **/home/user/bases/iah**)

6.1.2 APPEARANCE section

The definitions which make up this section are the following:

- BODY BACKGROUND COLOR=

  Indicates the background colour of the HTML pages in hexadecimal values of the RGB table

- BODY BACKGROUND IMAGE=

  Determines the background image of the HTML pages

- BODY TEXT COLOR=

  Indicates the text colour in the HTML pages in hexadecimal values of the RGB table

- BODY LINK COLOR=

  Indicates the colour of the links in the HTML pages in hexadecimal values of the RGB table

- BODY VLINK COLOR=

  Indicates the colour of visited links in the HTML pages in hexadecimal values of the RGB table

- BAR BACKGROUND COLOR=

  Indicates the background colour of the title bars in the HTML pages in hexadecimal values of the RGB table

- BAR TEXT COLOR=

  Indicates the text colour of the title bars in the HTML pages in hexadecimal values of the RGB table

6.1.3 HEADER section

The definitions which make up this section are the following:

- LOGO IMAGE=

  Determines the image file of the logo which is used in the head of the HTML pages. In general this type of file is located in the subdirectory **images**

- LOGO URL=

Determines the URLs of the websites which host the IAH interface in the three available languages

- HEADER IMAGE=

  Determines the image file which heads the HTML pages. In general this type of file is located in the sudirectory **images**

- HEADER URL=

  Indicates the URLs of the initial pages of IAH (the page giving the selection of databases) in the three available languages

6.1.4 IAH section

The definitions which make up this section are the following:

- MANAGER E-MAIL=

  Determines the e-mail address of the person responsible for the maintenance of IAH. Users are informed of this address in case of errors in the system

- REVERSE MODE=

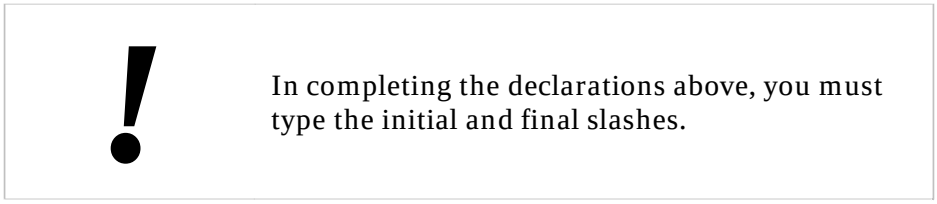
  Determines the order of presentation of the results of searches. The possible values are: in ascending order (*OFF*), or descending order (*ON*) of MFNs

- MULTI-LANGUAGE=

  Indicates whether the user can or cannot change the language of the interface. The possible values are: *OFF* for change is prohibited, and *ON* for change is permitted, between the languages English, Spanish and Portuguese.

6.2 How to configure the file iah.def

1. Open the file `iah.def` with the text editor you prefer
2. Configure the section `[PATH]`
3. Type immediately after the declaration `PATH_DATA=`, the relative path for the root directory of IAH, in this case **`/iah/`**
4. Type immediately after the declaration `PATH_CGI-BIN=`, the absolute path for the directory of IAH scripts, e.g. **`/home/user/cgi-bin/iah/`**
5. Type immediately after the declaration `PATH_DATABASE=`, the absolute path for the directory that contains the databases, e.g. **`/home/user/bases/iah/`**
6. Save the edited file.



6.3 Initial testing of the interface

Using an Internet browser (Internet Explorer, Mozilla, Netscape etc.) type in the the address box the URL in which IAH was installed, e.g.

http://my-server/iah/I/index.htm

where *my-server* is the name of the domain where the package is installed.

It is possible to access an installation in local mode using ***localhost*** or ***127.0.0.1*** as the name of the domain.

From this page it is possible to select the example databases which accompany the package (DBLIL and DBSECS).

It is suggested that you perform a search in the example databases (LILACS and SeCS) in order to confirm that the interface is functioning correctly before proceeding with the process of installation and configuring your own databases, personalizing the layout, etc.

In case of error you can use the URL below:

http://my-server/cgi-bin/wxis.exe?hello

http://my-server/cgi-bin/wxis.exe?IsisScript=getenv.xis

7 Your own databases

IAH is normally distributed with two databases in the formats used in the LILACS and SECS programmes.

To install and configure your own database, you need to follow the following steps:

7.1 How to install a new database

1. Transfer to the directory ISOS (`bases/iah/isos`) the file(s) in ISO format of the desired database(s)
2. Transfer to the directory FSTS (`bases/iah/fsts`) the FST file(s) of the database(s)
3. Transfer to the directory PFTS (`bases/iah/pfts/?/`) the display format files of the chosen database(s). The "?" corresponds to the language subdirectories of the interface (`E/`, `I/` and `P/`).

Note: Commands for indenting and vertical and horizontal space (characteristics of the CDS/ISIS format language) must be changed to their equivalents in HTML. Fields which contain symbols for control of filing (e.g. <A>, <The>, <La>, etc.) must have as their display mode *heading* (mhl).

4. Execute the database configuration file in the command line of DOS or Linux:
   a) Change to the database directory (e.g. `/home/user/bases/iah`)

b) Execute the command setupdb (shell or batch file – depending on the operating system), giving the name of the ISO file (including the extension), name of the FST file FST (including the extension) and the name of the resultant database (e.g. `setupdb.bat base.iso base.fst base`).

> **!** If the database has been set up with the ANSI (Windows) character table, use the fourth parameter, `ANSI`, in the instruction `setupdb`. The default for inversion is ASCII.

Create a copy of the file DBLIL.def with the name of your database, e.g. video.def and edit it for the requirements of your database, in accordance with the section How to configure a new database.

5. Add to the page for access to databases a link to this new database conforming to the following model:

   <A HREF = "/cgi-bin/wxis.exe/iah/?IsisScript=iah/iah.xic&base=**data**base&lang=p"> **Database**</A> - **Text describing the database**

   The terms in bold should be altered to reflect the details of your own database.

7.2 How to configure a new database

To configure a database in IAH it is necessary to alter some parameters in the database definition file (base.def), whose name is defined by the user during the installation (7.1, item 5) and which can be based on the definition of the LILACS database (DBLIL.def).

Therefore, *base*.DEF is a text file composed of six sections, whose functions are detailed in table 3.

TÍTLE of the SECTION	**DESCRIPTION**
[FILE_LOCATION]	Location of the database files, display formats and of export of data
[INDEX_DEFINITION]	List of definitions of indexes that can be accessed in searching
[APPLY_GIZMO]	List of files used for the global change of contents
[FORMAT_NAME]	List of definitions of display formats available
[HELP_FORM]	List of help files for the search forms
[DISPLAY_FORM]	List of search forms available

Table 3: Sections and functions of the file *base.def*.

7.2.1 Section FILE_LOCATION

In this section you should define the logical names of databases, inverted files, files for display formats and conversion of data, all with their respective physical paths.

For each database, you need to define three files: the database, the inverted file(s), and the display format files. For the definition of the database file the logical name **DATABASE** must be used.

Each definition is preceded by the instruction **FILE** in the general form:

```
FILE LOGICAL_NAME.*=/directory-1/directory-n/file_name.*
```

Using the definition of a database of the type LILACS and name "video" as example, the declaration results in:

```
FILE DATABASE.*=/home/user/bases/iah/vídeo.*
```

To ensure that the interface is portable to any directory structure, three variables have been predefined:

6. %path_database%
7. %path_cgi-bin%
8. %lang%

The variables **%path_database%** and **%path_cgi-bin%** get their values from the settings of PATH_DATABASE and PATH_CGI-BIN, respectively, of the file iah.def, while the variable **%lang%** receives the identifying letter of the language (p, e, i) according to the selection made by the user through the interface.

Hence the definition of the database file can be written like this:

```
FILE DATABASE.*=%path_database%video.*
```

In the same way, the definition of a display format can be written:

```
FILE standard.pft=%path_database%pfts/%lang%/lildhtm.pft
```

Note that the standard structure of the package is used in all the examples.

7.2.2 Section INDEX_DEFINITION

In this section you should define the indexes availables for the search. It is possible to mount an indexing FST or an FST with prefixes. The use of a fixed descriptive element of index excludes or includes other variables, dependening on the group to which they pertain. The elements referring to the language are neuter and optional.

Each definition is preceded by the term INDEX, followed by a prefix which can have various descriptive elements identified in subfields following table 4.

Element	Group	Description
^p	standard	Name of the index in the Portuguese language (1)
^e	standard	Name of the index in the Spanish language (1)
^i	standard	Name of the index in the English language (1)
^d	standard	Marks the default index (2)
^f	standard	Indicates availability of the field only in the advanced form (content: "A") (3)
^t	standard	Type of the index ("short" for short index, "hidden" for hidden index) (3)
^g	standard	Defines the gizmo for executing in the keys of the inverted file (3)
^s	not prefixed	List of identificadores (tags) of field in donde se desea realizar the search
^x	prefixed	Identifies the prefix which will be used in search strategies
^y	prefixed	Identifies the logical name of the inverted file
^u	prefixed	Identifies the prefix to use
^m	prefixed	Identifies the prefix refering to the form or note associated with the search index. It works in conjunction with the definition of specific notes for the fields in the section HELP_FORM

Table 4: Components of the definition of indexes.

(1) Optional element in accordance with the selected language.
(2) Mandatory element for the default index.
(3) Optional element.

As a general form, we have:

```
INDEX XX=^p<Nome>^e<Name>^i<Name>^d*^s<Tag>^fA^t<short|hidden>
```

So, the definition of a word index to present as default could be:

```
INDEX TW=^pPalavras^ePalabras^iWords^d*
```

In the example above, the index shown as “Words” in English, would be the default and would perform a search in all the fields defined in the FST. This definition also implies an FST without field prefixes.

For an author index composed of the fields 10, 16 and 23 and shown only in the advanced form, the declaration would be:

```
INDEX AU=^pAutor^eAutor^iAuthor^s10,16,23^fA
```

For an index of subject descriptors identified by the prefix "MH" in the FST and available only in the English language, the declaration would be:

```
INDEX MH=^iSubject descriptor^xMH ^uMH_^yDATABASE^mMH_
```

For an index of words from the abstract identified by the prefix "AB" in the FST and with reference to an inverted file with the name "RESUMEN" we would have in the files section of the definition:

```
FILE RESUMEN.*=/home/user/bases/iah/resumen.*
```

and in the definition of indexes:

```
INDEX AB=^pPalavras do resumo^ePalabras of the resumen^iAbstract
words^xAB ^uAB_^yRESUMEN^mAB_
```

7.2.3 Section APPLY_GIZMO

In this section you should indicate the files for the global changes of strings of characters contained in the databases (GIZMO files), permitting conversion of character tables, coding/decoding of data, compression of information, etc.

The logical names must be defined in the section FILE_LOCATION

Each definition should be preceded by the term GIZMO, with the general form:

```
GIZMO LOGICAL_NAME
```

The standard IAH package contains some predefined GIZMO databases:

LOGICAL NAME	Description
GANS850	Performs the conversion of ANSI characters to their equivalences in ASCII 850.

LOGICAL NAME	Description
G850ANS	Performs the conversion of ASCII 850 characters to their equivalences in ANSI.
QLFANS	Performs the decoding of the codes used in DeCS descriptors in accordance with the ANSI (Windows) table. Available in three languages.
QLF850	Performs the decoding of the codes used in DeCS descriptors in accordance with the ASCII 850 (DOS) table. Available in three languages.
LANGS	Performs the decoding of the language codes in accordance with the ANSI (Windows) table. Available in three languages.
GIZMOTL	Performs the decoding of the type of literature codes in accordance with the ANSI (Windows) table. Available in three languages.
GIZMONB	Performs the decoding of the bibliographic level codes in accordance with the ANSI (Windows) table. Available in three languages.
QLF850	Performs the decoding of the codes used in DeCS descriptors in accordance with the ASCII 850 (DOS) table. Available in three languages.
LANGS	Performs the decoding of the language codes in accordance with the ANSI (Windows) table. Available in three languages.
GIZMOTL	Performs the decoding of the type of literature codes in accordance with the ANSI (Windows) table. Available in three languages.
GIZMONB	Performs the decoding of the bibliographic level codes in accordance with the ANSI (Windows) table. Available in three languages.

Table 5: Table of standard GIZMOS in the IAH package.

Note that each gizmo table matches the earlier definition in the file DBLIL.def of the example included with the package:

```
FILE GIZMOTL.*=%path_database%gizmo/%lang%/gizmotl.*

FILE GIZMONB.*=%path_database%gizmo/%lang%/gizmonb.*

FILE LANGS.*=%path_database%gizmo/%lang%/lang.*

FILE G850ANS.*=%path_database%gizmo/g850ans.*

FILE GANS850.*=%path_database%gizmo/gans850.*

FILE QLFANS.*=%path_database%gizmo/%lang%/qlfans.*
```

FILE QLF850.*=%path_database%gizmo/%lang%/qlf850.*

You can specify the database GIZMO ASC2ANS for converting data recorded in the database in ASCII format into ANSI as follows:

GIZMO=ASC2ANS

7.2.4 Section FORMAT_NAME

In this section you define the logical names of the available display formats and their descriptions in the three languages.

Each definition is preceded by the term **FORMAT,** followed by the real name and of the descriptions for each language (**^p** for *Portuguese*, **^e** for *Spanish*, and **^i** for *English)* like this:

FORMAT xxxxx=^pnononon^enononon^inononon

The installation package comes accompanied by six display format files for the language of the interface: four for the LILACS model and two for the SECS model.

The four formats for LILACS are: long, detailed, citation and title. The default format is citation. The files (with the extension .pft) defined for each of the formats must be declared in the section [FILE_LOCATION].

The definition of the detailed format is declared like this:

FORMAT detailed.pft=^pDetalhado^eDetallado^iDetailed

The declaration FORMAT DEFAULT specifies which is the default for the interface and should preferably be the last declaration of this section. Note that the format must have been declared previously:

FORMAT DEFAULT=detailed.pft

7.2.5 Section HELP_FORM

In this section you define the HTML files for help and the explanatory notes for each type of form (free, basic and advanced) and/or the indexes availables in the interface. It is assumed that these files are located under the root of IAH in the subdirectory help below each language (`P`, `E`, `I`).

The content of these files can be generic, serving all the elements of a particular category (form or index), or specific, for determining one element within the category. For example, you can define a help file which serves all the available indexes and additionally a help file that gives more detail of one of them.

To define a generic help text, the declaration should be preceded by the term **HELP FORM** or **HELP INDEX** and followed by the physical name of the file.

For example:

```
HELP FORM=help_forms.html

HELP INDEX=help_indexes.html
```

To define a specific help text, the declaration should include the type of search form (F: free, B: basic and A: advanced) and/or index (in accordance with the section INDEX_DEFINITION).

For example:

```
HELP FORM F=help_form_free.html

HELP INDEX TW=help_index_words.html
```

To define a test for *explanatory notes*, the declaration should be preceded by the term **NOTE FORM** or **NOTE INDEX** in place of HELP FORM and HELP INDEX. The rest of the procedure is identical.

7.2.6 Section PREFERENCES

In this section you define some options of the interface for the particular database.

The declarations contained in this section are the following:

- AVAILABLE FORMS

  Determines the set of forms availables, the first one listed being the default in the initialization. The forms are identified by letters as shown in Table 6.

Identifier	Form
F	Free
B	Basic
A	Advanced

Table 6: Identifiers of Forms.

  The definition is preceded by the term **AVAILABLE FORMS,** followed by the list of identifiers of forms separated by commas, as:

```
AVAILABLE FORMS=F,A
```

  This declaration informs IAH that there are two search forms available (Free and Advanced), with the free form being the default in the initialization.

- SEND RESULT BY EMAIL

  Determines whether or not the sending of search results by email is enabled. The possible values are ON and OFF. For this option to function correctly the user should install and configure an SMTP program and create a routine for receiving the parameters sent by the interface.

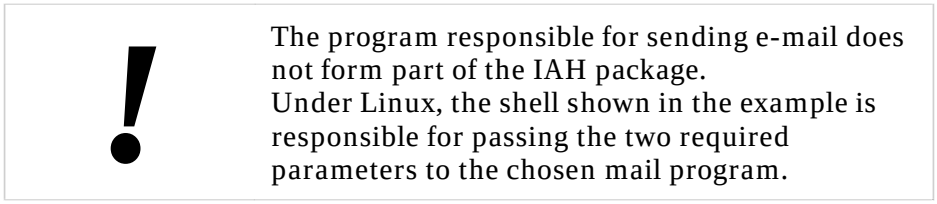
  The command which is executed when this option is activated should be given in the file *sendmail.conf* of the directory root of the IAH (/home/user/htdocs/iah/).

  Under Windows the content of the file sendmail.conf could be:

```
EXECUTE=blat <file> -subject Results -to <mailto> -q -html
```

  Under Linux the content would be:

```
EXECUTE=/home/user/iah/cgi-bin/email.sh <mailto> <file>
```


!
The program responsible for sending e-mail does not form part of the IAH package.
Under Linux, the shell shown in the example is responsible for passing the two required parameters to the chosen mail program.

```
SEND RESULT BY EMAIL=OFF
```

- NAVIGATION BAR

  Determines whether the navigation bar between the retrieved documents should be shown or not. The possible values are *ON* and *OFF*.

NAVIGATION BAR=ON

- DOCUMENTS PER PAGE
  Determines the maximum number of documents shown in the results page of a search.

DOCUMENTS PER PAGE=20

- FEATURES
  Indicates additional characteristics of IAH availables for use. Currently, the package only supports the XML standard in the export of records.

For example:

FEATURES=XML

7.3 Management of multiple databases with a different layout

A single instance of IAH can hold a large quantity of databases and yet permit the layout, the colours and the output format of data be changed.

When you want to add new databases in IAH (e.g. rare books and institutional – referred to here as "rare" and "videos") with clearly distinct visual identities, you should start with the preparation of the environment in which you replicate the parameters of the installation model.

In the following steps it is assumed that the databases are compatible with the LILACS model.

1. Create a subdirectory for each database in the root of the IAH documents and in the area of display formats, e.g.

htdocs\iah\rare

htdocs\iah\videos

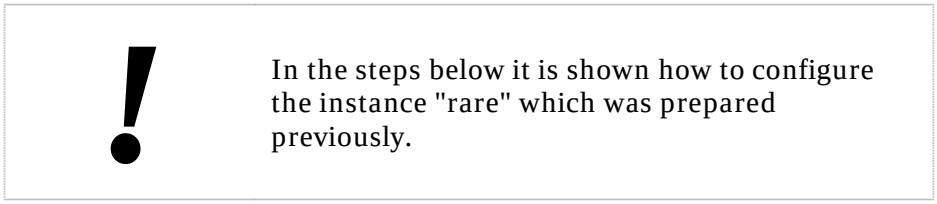
bases\iah\pfts\rare

bases\iah\pfts\videos

2. Copy the files *\htdocs\iah\iah.def* and *\htdocs\iah\dblil.def* for each subdirectory of the area of documents (*htdocs\iah\rare* and *htdocs\iah\videos*)

3. Copy the subdirectories *E, I and P* below *\htdocs\iah* for each subdirectory of the area of documents (*htdocs\iah\rare* and *htdocs\iah\videos*)
4. Copy the subdirectories *E, I and P* abajo of *\bases\iah\pfts* for each subdirectory of the area of databases (*bases\iah\pfts\rare* and *bases\iah\pfts\videos*)

With the structure prepared, you can commence the customization of each new virtual instance of IAH, as follows:



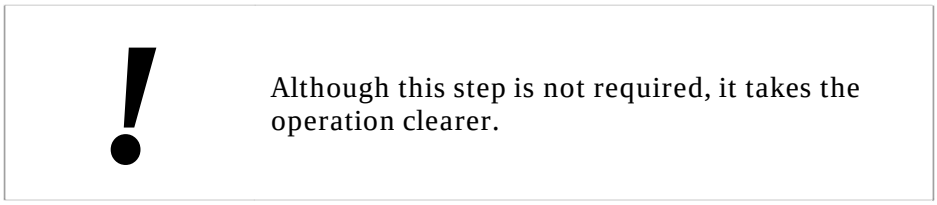
1. Edit the file *htdocs\iah\rare\iah.def*, changing the line below from:

PATH_DATA=/iah/

to:

PATH_DATA=/iah/rare/

2. Rename the file *htdocs\iah\rare\dblil.def* to *htdocs\iah\rare\rare.def*



3. Edit the file *htdocs\iah\rare\rare.def*, changing the lines below, described in the section FILE_LOCATION:

from:

```
FILE DATABASE.*=%path_database%dblil.*

FILE standard.pft=%path_database%pfts/%lang%/lillhtm.pft

FILE detailed.pft=%path_database%pfts/%lang%/lildhtm.pft

FILE citation.pft=%path_database%pfts/%lang%/lilchtm.pft

FILE citation.xml=%path_database%pfts/lilCitationXML.pft

FILE title.pft=%path_database%pfts/%lang%/lilthtm.pft

FILE SHORTCUT.IAH=%path_database%pfts/%lang%/shortcut.pft
```

```
FILE descritores.pft=%path_database%pfts/%lang%/descritores.pft
```

to:

```
FILE DATABASE.*=%path_database%rare.*

FILE standard.pft=%path_database%pfts/rare/%lang%/lillhtm.pft

FILE detailed.pft=%path_database%pfts/rare/%lang%/lildhtm.pft

FILE citation.pft=%path_database%pfts/rare/%lang%/lilchtm.pft

FILE mes.pft=%path_database%pfts/rare/%lang%/mes.pft

FILE title.pft=%path_database%pfts/rare/%lang%/lilthtm.pft

FILE SHORTCUT.IAH=%path_database%pfts/rare/%lang%/shortcut.pft

FILE descritores.pft=%path_database%pfts/rare/%lang%/descritores.pft
```

4. Copy the database "rare" (*rare.mst* and *rare.xrf*) to the directory defined in the option FILE DATABASE of the file *rare.def* (*bases\iah*)
5. Copy the FST *dblil.fst* to *rare.fst* (*bases\iah\fsts*)
6. Open a DOS session and change to the directory *bases\iah*
7. Generate the inverted file for the database with rare.fst using the line below as a model:
   a) for Windows:

```
mx rare fst=@fsts\rare.fst fullinv/ansi=rare now -all
```

   b) for Linux

```
./mx rare fst=@fsts/rare.fst fullinv/ansi=rare now -all
```

Now, you need only to construct the URL for the database with the parameters changed to access the new virtual instance RARE.

Let us consider, therefore, the basic URL of IAH for the example database DBLIL in the English language that comes with the IAH package:

```
http://domain/cgi-bin/wxis.exe/iah/?IsisScript=iah/iah.xic&lang=I&base=dblil
```

We can separate the terms of the URL into blocks like this:

Term	Code
protocol	http:
domain	//domain/
program	cgi-bin/wxis.exe

root of the application	/iah/
parameter 1: application	IsisScript=iah/iah.xic
parameter 2: language	lang=I
parameter 3: database	base=dblil

To construct the appropriate URL for the database "RARE", you should follow these steps:

1. Add the name of the directory to the end of the term "root of the application":

/iah/rare/

2. Change the name of the database in parameter 3:

base=rare

The table with the new parameters will be:

Term	**Code**
protocol	http:
domain	//domain/
program	cgi-bin/wxis.exe
root of the application	/iah/**rare/**
parameter 1: application	IsisScript=iah/iah.xic
parameter 2: language	lang=I
parameter 3: database	base=**rare**

Reconstructing the URL, this becomes:

http://domain/cgi-bin/wxis.exe/iah/rare?IsisScript=iah/iah.xic&lang=I&base=rare

Now that there is a separate area configured for the new database (RARE), the image files (htdocs\iah\rare\?\image) and the support and help texts (htdocs\iah\rare\?\help) can be changed without affecting changes to the original files or other virtual instances.

It is also possible to change the definitions of colour and the names of logos defined for the interface, in the case the user wants to differentiate each instance, through the parameters defined in the sections APPEARANCE and HEADER.

8 How to use the IAH interface

Any search in the databases is performed through a form in which the user enters his/her “search expression”, made up of words, terms and boolean (or logical) operators.

After the required database has been selected, the IAH interface presents the “free” form (adopted as the default of the instalation), with other forms available: basic and advanced.

The examples and figures are based on IAH configured for the databases LILACS and MEDLINE.

8.1 Free form

This searches words in all the fields that are inverted word by word.

8.1.1 Important remarks

- When there is more than one word you should separate them by a single space, selecting one of the available operators: AND (to relate) or OR (to sum)

- If you want to trunacte terms or words partially, use the symbol ($) at the end of the root, for example: infect$ retrieves infection, infections, infectious etc.
- It is important to consider the synonyms and variations of the search words (e.g. cerebral, brain).

Example 1: Search in the LILACS database on the diminution of risk of infection by the human immunodeficiency virus (HIV) in haemodialysis patients.

Consider only the most significant words for your search and type them into the available space. In this example you should leave the operator AND selected so that IAH searches for articles that contain all the words entered.

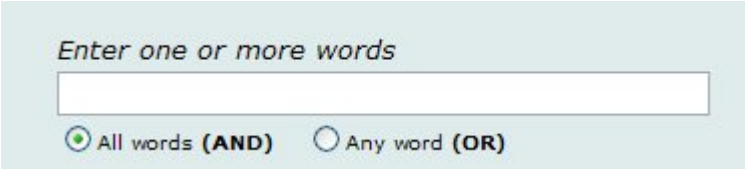


Figure 3: Example of completing the field for a free form.

8.2 Basic and Advanced Forms

The ***Basic Form*** permits searching in the principal search fields of the databases, amongst them: words, descriptors, limiting by subject, author, journal and language, so offering access to the indexes of those fields which help to assemble the search expression.

The ***Advanced Form*** permits searching in all the fields of the datadatabase and has the same resources as the basic form.

To go to the basic or advanced forms, you have to click the name of the **form** in the upper right part of the free form.

Figure 4: Location of the options for of type of search form.

8.2.1 How to search

3. **Do not type anything** in the white boxes.
4. Select one of the search fields, click the button which matches in the box showing the fields, and click the index button on the same line.

Figure 5: Selection of search field.

!	When you have more than one word or term in the same line, you must use one of the boolean operators (AND, OR, AND NOT) between each term. The operator **AND** is defined previously as default between one line and another, but can be altered by the user according to the requirements of the search.

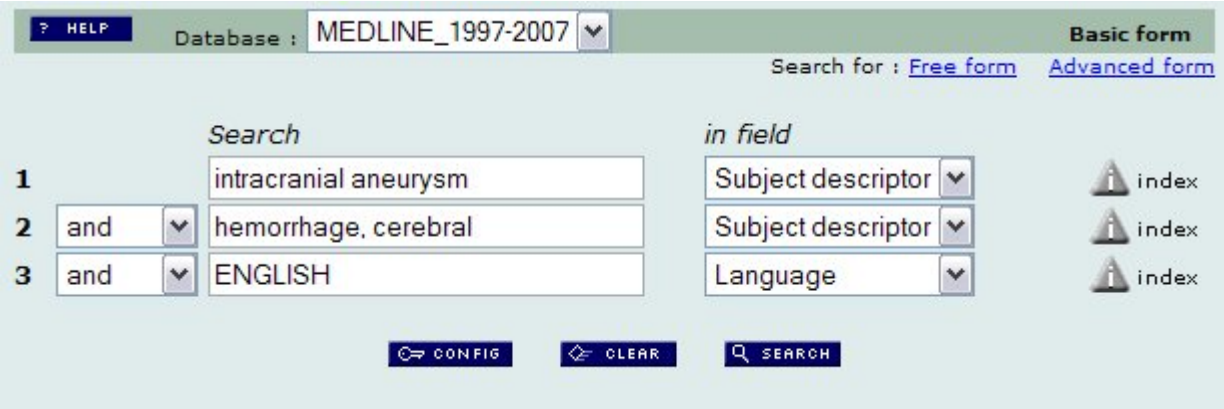


Figure 6: Example of a search expression entered in the basic form.

In this example using the **AND** operator, the system relates the two subjects and retrieves only articles in English.

8.2.2 Display of the results

Once the search has been executed, the first part of the page shows information about the database searched, the search expression, and some of the references retrieved in the search in groups of 20 records, in the display format indicated in the **CONFIG.** (In the example below the display is in the long format).

YOUR SELECTION
>> SEND RESULT
NEW SEARCH
CONFIG
PAGE BOTTOM
Database : MEDLINE_1997-2007
Search on : hypertension [Descritor de Assunto]
References found : 44519 [refine]
Displaying: 1 .. 10 in format [Detailed]
page 1 of 4452
go to page 1 2 3 4 5 6 7 8 9 10
1 / 44519
MEDLINE_1997-2007
select
to print
Photocopy
[PMID]: 17200225
[Au] Autor: Thiébaut AC; Freedman LS; Carroll RJ; Kipnis V
[Ti] Title: Is it necessary to correct for measurement error in nutritional epidemiology?
[Cm] Comment: Comment On:Ann Intern Med. 2007 Jan 2;146(1):10-9
[So] Source: Ann Intern Med;146(1):65-7, 2007 Jan 2.
[Is] ISSN: 1539-3704

Figure 7: Example of a search result.

> **!** The number of records per page can be altered through the declaration DOCUMENTS PER PAGE in the definition file of the database.

The principal commands and resources available in this page are the following:

[refine] – changes the search form to the previous search expression.

1. NEW SEARCH - changes the search form to a new search.
2. YOUR SELECTION - lists the references (or records) previously selected.
3. The selection is achieved by clicking in the area **[selection]** available in the left corner of each reference displayed, as shown in the picture below where the reference number 1 is selected. To cancel the selection, it is sufficient to click again within the area.
4. >> SEND RESULT -permits printing or capturing the references or records retrieved in the search, selected or not, for sending the references by electronic mail (e-mail).

   This option can include:

   c) **all the references** retrieved in the search

   d) **a sequential range of** references retrieved, e.g. 1 to 50

   e) **The references selected** previously in the results page of the search
5. In the option to send for printing, the system generates a list with the option defined by the user. From this list you should use the print or capture command of your web browser.

   ° **To print** – use the option **Print** of your web browser

   ° **To capture** in text format – use the option **File, Save As** of your web browser
6. CONFIG - command that permits changing the format of display/listing of the references retrieved in the search; changing the language of the interface; and the option to include or not the navigation bar.

Figure 8: Window for configuring the interface.

The formats available are the following:

- ***long:*** includes bibliographic data of the reference and abstract
- ***detailed:*** includes bibliographic data of the reference, summary and descriptors (or keywords)
- ***title:*** includes only the title of the aricle/document
- ***citation:*** is the format of bibliographic reference, without abstract (default format).

7. Select the desired format and confirme with the button << APPLY.
8. To navigate between the pages, use the pagination bar of the results.

Figure 9: Pagination bar of the results.

Each page of results includes a maximum of 20 references: it is possible to configure this value during and after the installation. To navigate amongst the reference, or within the same page, use the array of arrows available in the navigation bar of the records ( ).

8.3 Logical operators in the search

The logical operators or boolean operators are used to relate terms or words in a search expression. They combine two or more terms in one or more search fields.

The boolean operators are:

1. **AND** - Intersection – used to **relate** terms.
   In a search of two or more terms related with AND, you retrieve documents which have the terms occurring together.

Example: Hepatitis B **AND** Hepatic cirrhosis.

2. **OR** - Union - used to **add** terms.
   In a search of two or more terms related with **OR**, you retrieve documents which have any one (or more) of the search terms.

Example: Hepatitis B **OR** Hepatic cirrhosis.

3. **AND NOT** – Exclusion – used to exclude.
   In a search excluding a particular term you retrieve documents which have no relation with this term.

Example: hepatitis B **AND NOT** Hepatic cirrhosis.

In this example you retrieve documents about hepatitis B excluding documents about hepatic cirrhosis.

The operator that is pre-selected in the search forms is **AND**. In the basic and advanced search forms, the boolean operators are in the first column, starting from line 2 of the form.

The relation between the term typed in line 1 and the one typed in line 2 is controlled by the **boolean operator** selected in the first column of the form. Select the appropriate operator for correctly relating the search terms. Only in the basic and advanced forms is it possible to employ a search expression using more than one **boolean operator.**

Example 1**:** search for the descriptor **hepatitis B** related with the descriptor **Hepatic cirrhosis – AND.**

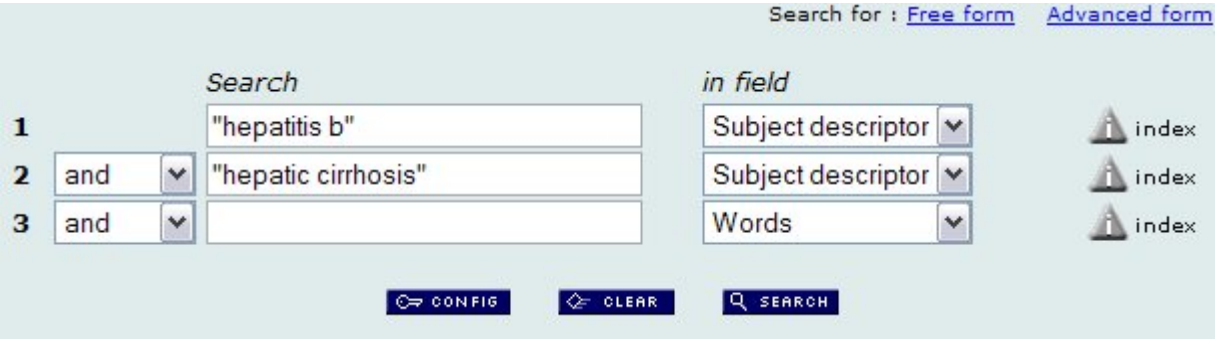


Figure 10: Example of a search with the operator **AND**.

In this example the system retrieves records which contain the two descriptors at the same time.

Example 2: search for **hepatitis B** or **hepatitis C** related with **hepatic cirrhosis - OR** and **AND.**

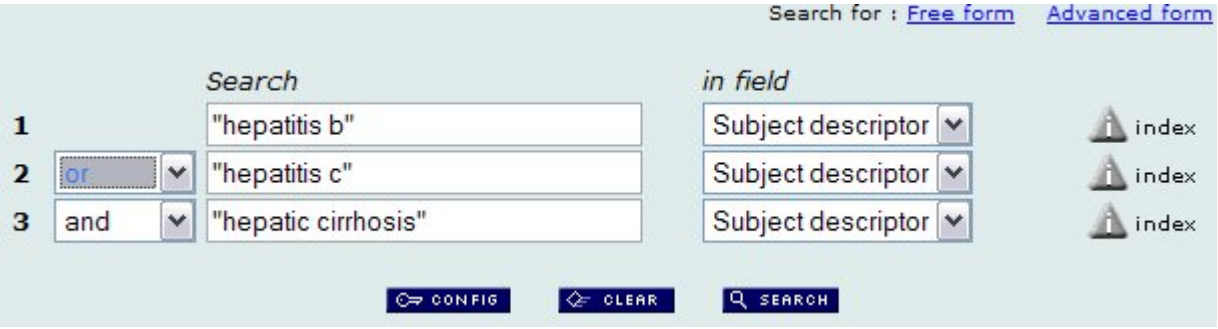


Figure 11: Example of a search with the operators **OR** and **AND**.

In this example it is necessary to use two boolean operators: **OR** and **AND**.

In searches using different boolean operators, the order of the terms in the form can cause a difference. To clarify, we follow the logic of the mathematical expresions.

Supposing that the set of documents about **hepatitis B** is **A,** the set of documents about **hepatitis C** is **B** and the set of documents about **hepatic cirrhosis** is **C; the search** expression which corresponds to the example is the union of the sets **A** and **B,** which result is then related with the set **C**. As a mathematical expression this search can be represented by:

(A ∪ B) ∩ C

i.e.

(hepatitis B OR hepatitis C) AND hepatic cirrhosis

Example 3: search for **hepatitis B** or **hepatitis C** and not related with **hepatic cirrhosis** - **OR** and **AND NOT**

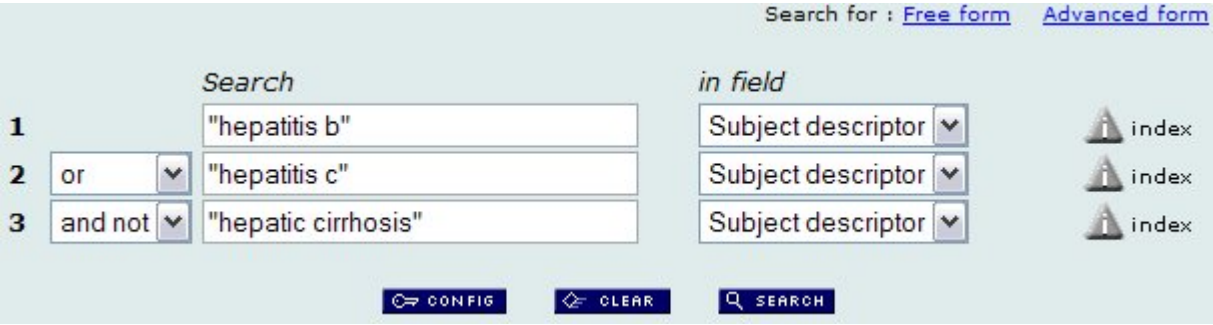


Figure 12: Example of a search with the operators OR and AND NOT.

In this example, the system retrieves the records which contain one of the two descriptors and excludes all the records which contain the descriptor “hepatic cirrhosis”.

Example: hepatitis B **OR** hepatitis C **AND NOT** hepatic cirrhosis

8.4 Search fields

8.4.1 Words

The ***words*** search field is considered a free-text field, formed of single words. Therefore, you should not include in your search articles, prepositions, compound terms and phrases.

The search is processed against the words in titles (original and translated) in the abstract and in the descriptors assigned to the document.

As a search in the free search form:

Example – search for "*complications of hepatic cirrhosis*" in the MEDLINE database

If the search is in the MEDLINE database, we should preferably use the words in English: **complications**, **hepatic**, **cirrhosis**.

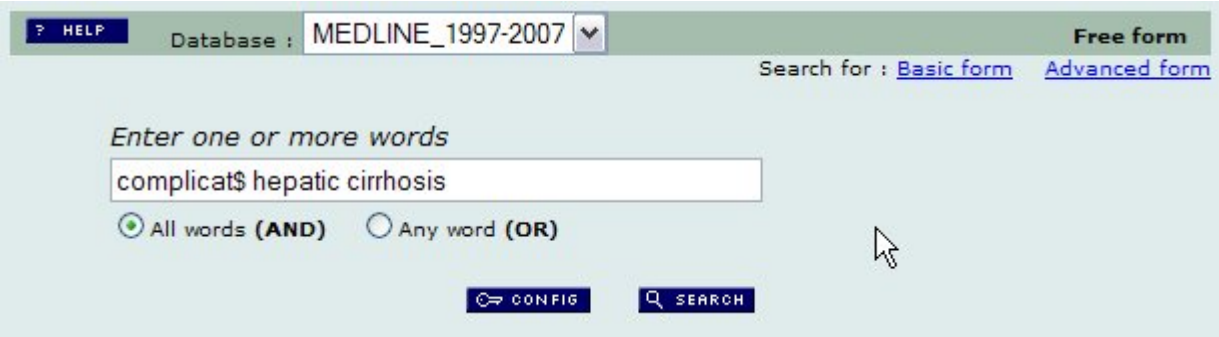


Figure 13: Example of a free search with the operator AND (MEDLINE database).

1. Type one or more words, separated by a single space and select the operator **AND** (to relate) or **OR** (to add).
2. You should truncate the words to include their variations. For example: *complicat**$*** - to retrieve complication, complications, etc.
3. For the same search in the LILACS database, you should consider words in Portuguese and Spanish.

Figure 14: Example of a free search with operator AND (LILACS database).

8.4.2 Descriptor

The ***descriptor*** field is the preferred route for an efficient search with the best results.

This field contains terms which represent the subject of the article or document, known as descriptors, keywords, uniterms, subject headings, MeSH terms (Medical Subject Headings), or DeCS terms. ["Keyword" is somewhat ambiguous in English as it is also sometimes used to mean significant words in the title, abstract, etc.]

The descriptors are in ***Portuguese***, which permits the search to be carried out in Portuguese, although searching an international database like MEDLINE.

When searching the ***descriptor*** field it is very important to know what is the correct descriptor, authorised for searching. The best option is to consult the index of the field.

Example: search for the subject ***"foetal alcoholic syndrome"***

Step 1- in the basic or advanced forms, **do not type in the white boxes**.

1. Select in line 1 of the ***descriptor*** search field, having clicked the button which matches in the box reserved for the fields
2. Click the image

to open the page for access to the index of the field selected in the form.

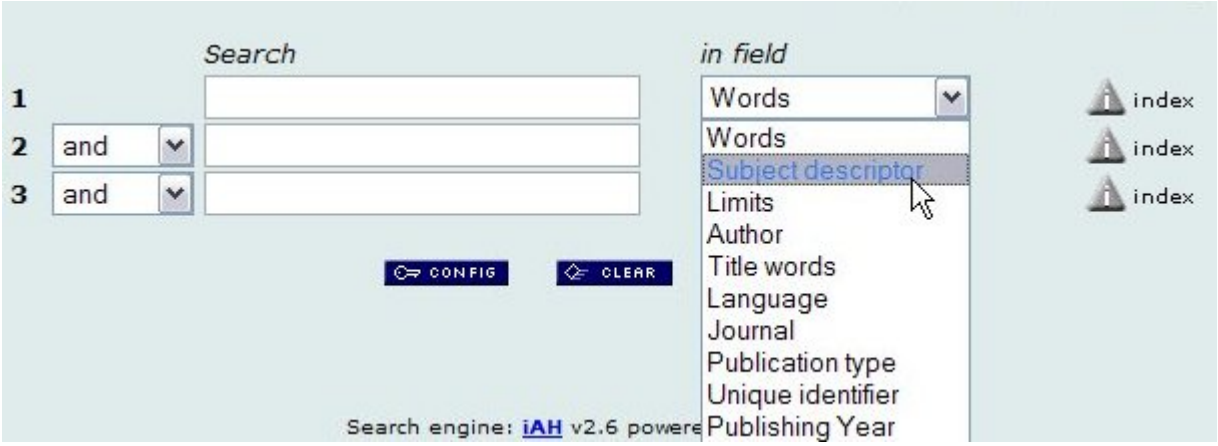


Figure 15: Selection of the descriptor in the box reserved for the search fields and the button for access to the index

Step 2 – in the page for access to the index type in the appropriate space the first word or element of your search (in the example **syndrome**), and click on

.

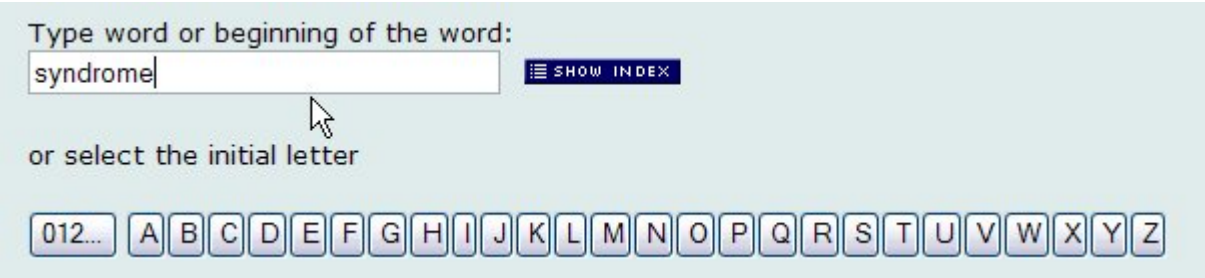


Figure 16: Example of how to complete the page for access to the index.

Step 3 – from the index display, click to mark the descriptor of interest

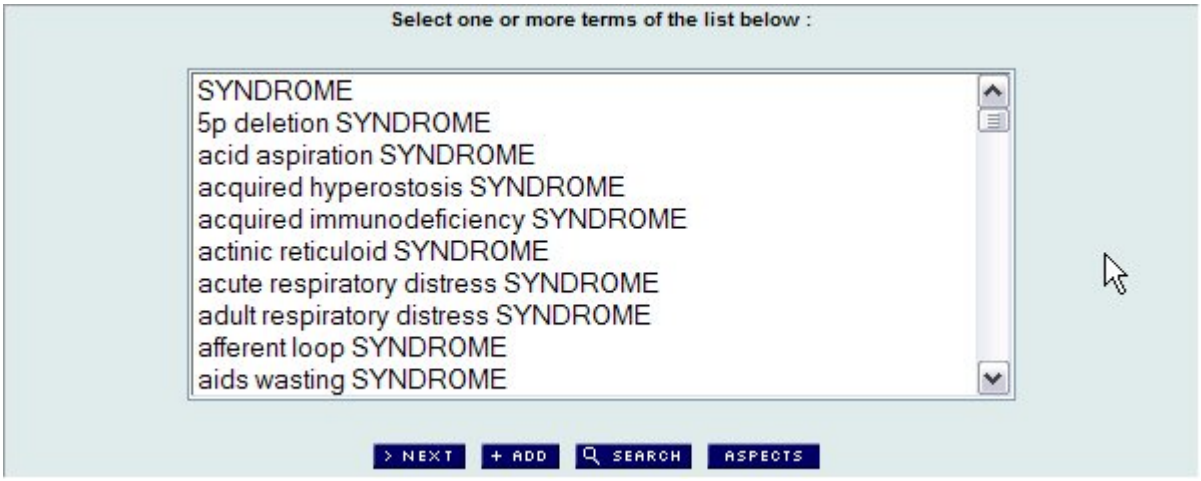


Figure 17: Example of the list of index terms.

1. To execute the search, click the button SEARCH.
   The system retrieves all the records which contain the ***descriptor*** "alcoholic foetal syndrome".
2. To relate this descriptor with another descriptor or with another search field (language, author, etc.) click the button + ADD.
   The system transfers the descriptor selected to the search form.

8.4.3 Author

The search field **Author** contains the fornames and surnames of the authors of the articles or documents recorded in the databases.

In the MEDLINE database, the ***authors*** are indexed in the format of surname and initials, without a comma between the surname and the initials and without a full stop after the initials.

Example: WILLIAMS AF

In the LILACS database and other databases, the authors are indexed in the format of surname and forenames, separated by a comma, as they appear in the article.

Example: SILVA, Antonio Carlos Pereira

The names of the ***authors*** do not always apear in a standarized manner. See the example where the name of the autor Adib Domingos Jatene appears in the author index of the MEDLINE and LILACS databases.

MEDLINE **LILACS**

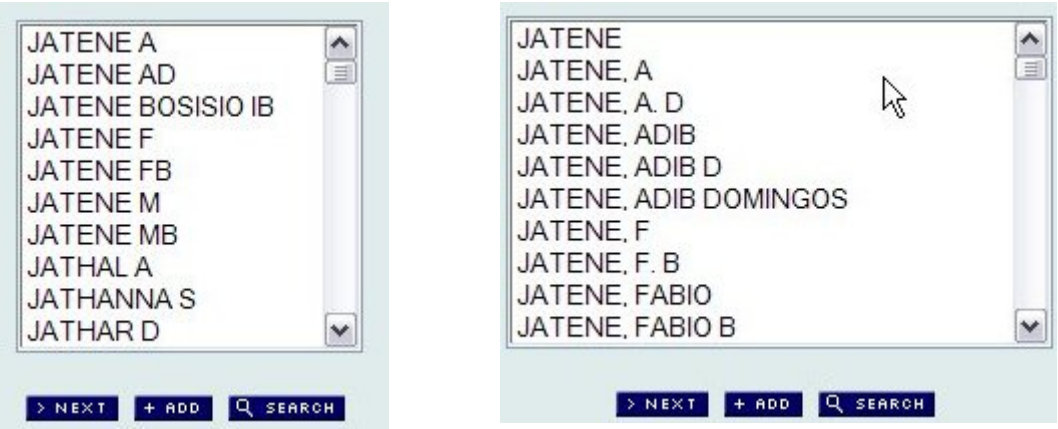


Figure 18: Comparison of the author indexes of the MEDLINE and LILACS databases.

ADVICE: Always where possible enlist the help of the indexes for entering your search expression in the form. If you choose not to use the author index, use the symbol **$** to truncate part of the forename, e.g. **JATENE$.** (This format retrieves all the authors who have the surname Jatene.)

8.4.4 Type of Literature

The search field **type of literature** only is available in the **Advanced** search form and only in the databases which follow the LILACS system (LILACS,

ADOLEC, BBO, ADSAUDE, etc.) It contains types of literature such as: monographs, thesis, project documents, etc.

Example: to retrieve ***theses*** about ***indocyanine green***

Step 1- in the advanced form type nothing in the first line; select in the 3rd column of the first line the field of search **descriptor** and click index ; to access the index, type "***indoc***" ; select the descriptor and click in + ADD.

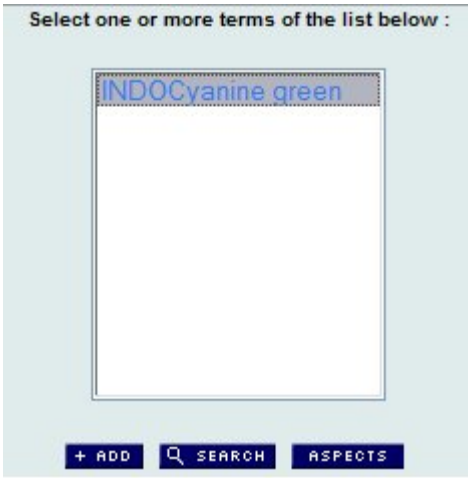


Figure 19: Example of the list of descriptors.

Step 2- go to the second line, select in the 3rd column of this line the search field "***type of literature***"; click the button index (the index of the second line); from the index select the type **thesis** and click the button + ADD to transfer the term to the form.

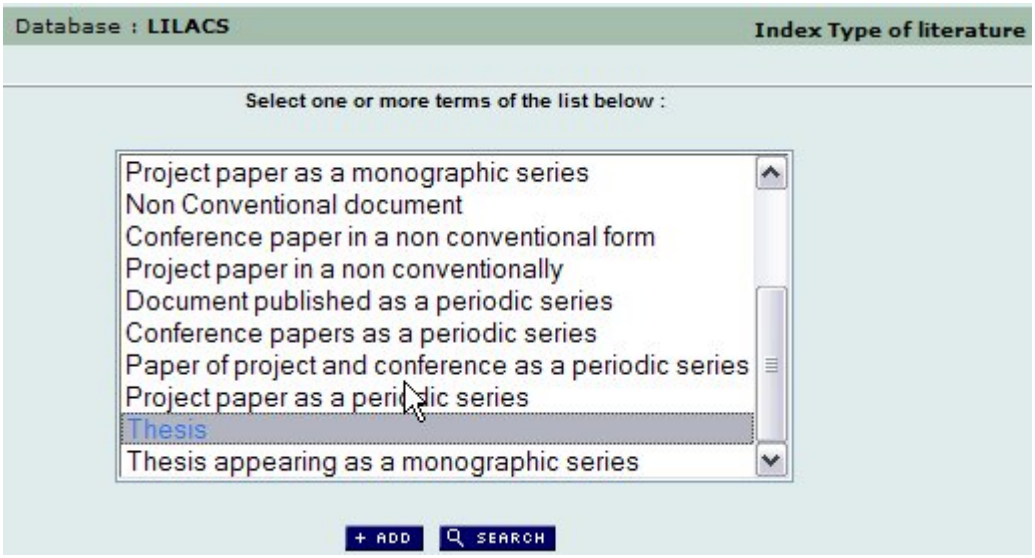

Database : LILACS
Index Type of literature
Select one or more terms of the list below :
Project paper as a monographic series
Non Conventional document
Conference paper in a non conventional form
Project paper in a non conventionally
Document published as a periodic series
Conference papers as a periodic series
Paper of project and conference as a periodic series
Project paper as a periodic series
Thesis
Thesis appearing as a monographic series
+ ADD
SEARCH

Figure 20: Example of list of type of literature.

See the form with the search expression which applies to the example:

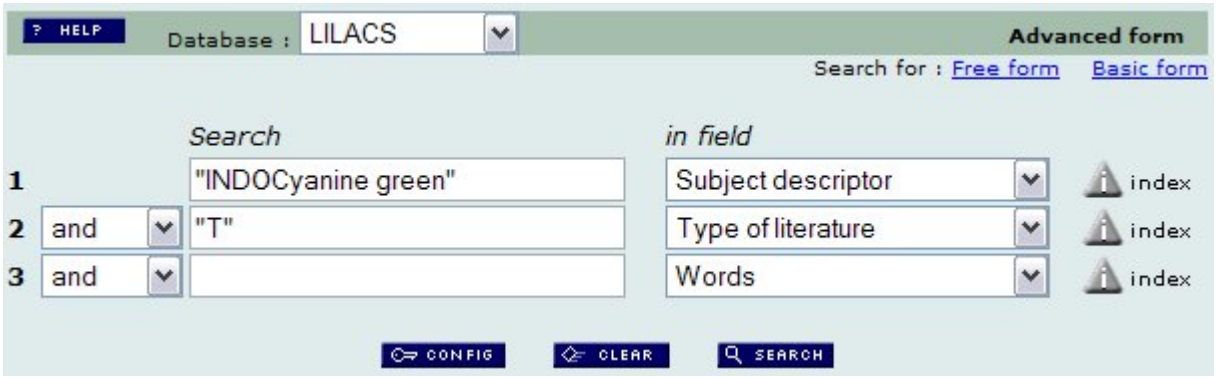


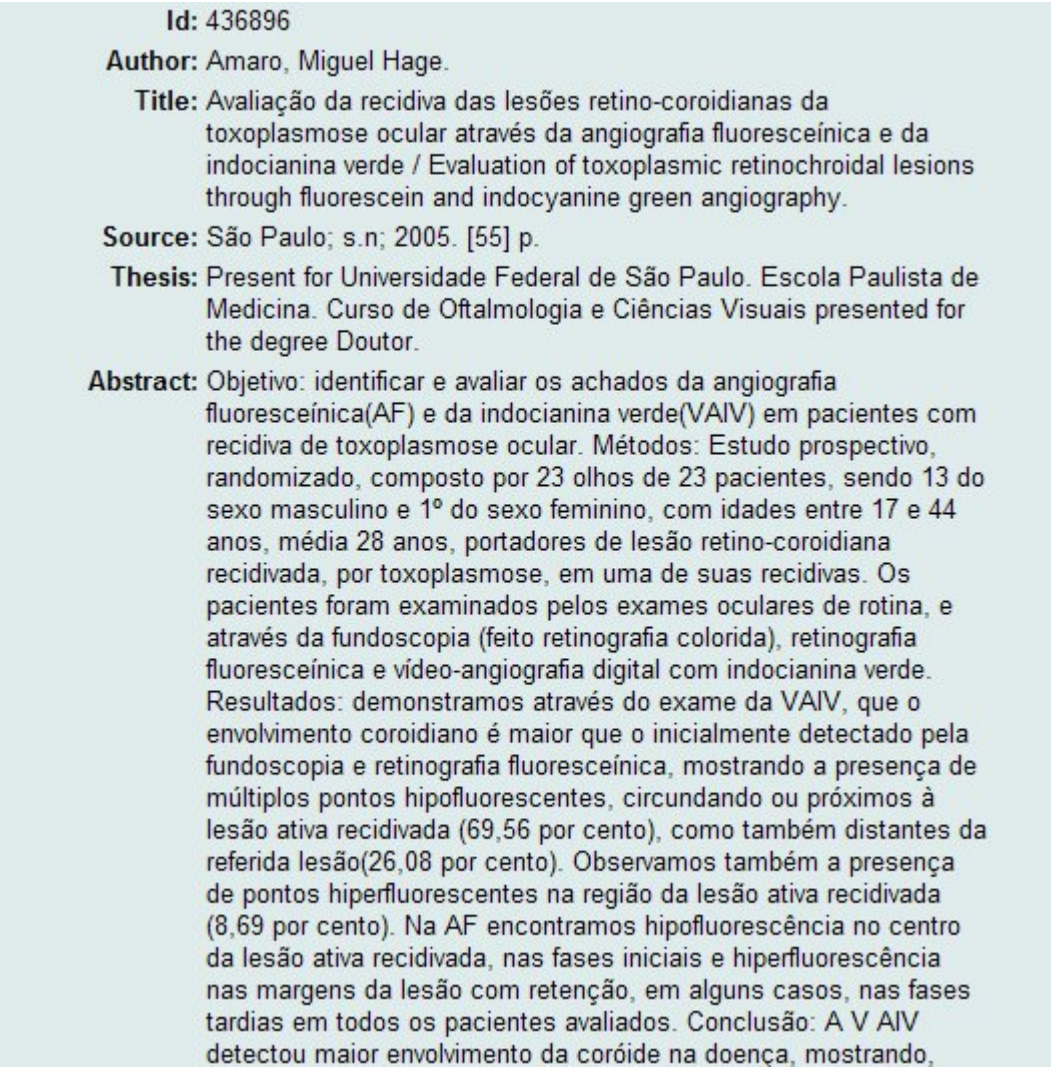
Figure 21: Example of completed form with descriptor and type of literature.

8.4.5 Unique Identifier

The search field **unique identifier** contains the **identification number of the article or document in the database.**

A search in this field allows you to retrieve a particular record from the database based on the indentification number of the article or document.

The unique identifier is the first item of data that appears in the database record, corresponding to the abreviation **Id (in LILACS)** or **PMID (in Medline)**. See the example:



Id: 436896
Author: Amaro, Miguel Hage.
Title: Avaliação da recidiva das lesões retino-coroidianas da toxoplasmose ocular através da angiografia fluoresceínica e da indocianina verde / Evaluation of toxoplasmic retinochroidal lesions through fluorescein and indocyanine green angiography.
Source: São Paulo; s.n; 2005. [55] p.
Thesis: Present for Universidade Federal de São Paulo. Escola Paulista de Medicina. Curso de Oftalmologia e Ciências Visuais presented for the degree Doutor.
Abstract: Objetivo: identificar e avaliar os achados da angiografia fluoresceínica(AF) e da indocianina verde(VAIV) em pacientes com recidiva de toxoplasmose ocular. Métodos: Estudo prospectivo, randomizado, composto por 23 olhos de 23 pacientes, sendo 13 do sexo masculino e 1º do sexo feminino, com idades entre 17 e 44 anos, média 28 anos, portadores de lesão retino-coroidiana recidivada, por toxoplasmose, em uma de suas recidivas. Os pacientes foram examinados pelos exames oculares de rotina, e através da fundoscopia (feito retinografia colorida), retinografia fluoresceínica e vídeo-angiografia digital com indocianina verde. Resultados: demonstramos através do exame da VAIV, que o envolvimento coroidiano é maior que o inicialmente detectado pela fundoscopia e retinografia fluoresceínica, mostrando a presença de múltiplos pontos hipofluorescentes, circundando ou próximos à lesão ativa recidivada (69,56 por cento), como também distantes da referida lesão(26,08 por cento). Observamos também a presença de pontos hiperfluorescentes na região da lesão ativa recidivada (8,69 por cento). Na AF encontramos hipofluorescência no centro da lesão ativa recidivada, nas fases iniciais e hiperfluorescência nas margens da lesão com retenção, em alguns casos, nas fases tardias em todos os pacientes avaliados. Conclusão: A V AIV detectou maior envolvimento da coróide na doença, mostrando,

Figure 22: Example of a reference with the unique identifier in bold.

Very often, the user prints the results of a search and afterwards, to analyse the articles retrieved, decides to request photocopies of the articles. To do this it is possible to use the option of automatic completion of a photocopy request, the user has only to retrieve again the article(s) from the list of requests retrieved.

Example: to retrieve the articles whose ID numbers are ***176790 and 266022 and 374112*** in the LILACS database.

Type the IDs in the first line, separated with the boolean operator OR and select the search field “unique identifier”.

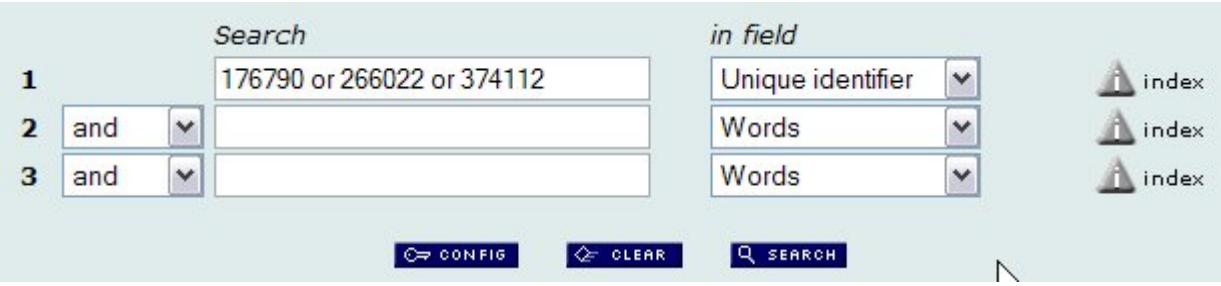


Figure 30: Example of completion of a search in the unique identifier field.

In the MEDLINE database, the search follows a similar form, but there also exists exists the concern of the division by group of years.

9 Bibliographic references

1. Centro Latinoamericano y del Caribe de Información en Ciencias de la Salud. *Descritores em Ciências da Saúde*. 2.ed. rev. São Paulo, 1992. 1111 p.

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5. Packer, A. L., Castro, E. de. Biblioteca Virtual en Salud. [monografia na internet]. São Paulo SP : BIREME - OPS - OMS, 1998 [citado 2005 Set 21]. Disponível em: http://www.bireme.br/bvs/por/entresp.htm.

6. Packer, A. L. et al. SciELO: uma metodologia para publicação eletrônica. Ciência da Informação [online]. 1998, v. 27, n. 2 [citado 2005 Set 21]. Disponível em:

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-19651998000200002&tlng=pt&lng=pt&nrm=iso. ISSN 0100-1965.

10 Glossary

- **Application**. Program used to execute tasks in connection with an application, such as the creation or edition of texts, drawings, animations, layout, etc. E.g.: text processor, database manager, Internet browser, etc.
- **Backup**. Procedure used to duplicate one or more files and/or directories in another storing device (tape or disc), thus producing a backup copy that may be restored in the event of accidental deletion or physical damage to the original data.
- **Bibliographic Database**. Electronic version of a catalog or bibliographic index.
- **Bibliographic Description**. Description of a bibliographic item by using attributes such as author, title, edition, size, etc.
- **Browser**. Internet page navigator, such as Internet Explorer and Netscape Navigator.

- **CDS/ISIS – MicroISIS**. Software program developed and maintained by UNESCO to manage bibliographic data.

- **CGI**. The Common Gateway Interface is a standard for interfacing external applications with information servers, such as HTTP or Web servers.

- **Database**. Collection of data that are structured to be easily accessed and handled. It is formed by units called records whose attributes are represented by fields. For example, in a file called "customer base", each customer is a record, with several fields such as "NAME", "CUSTOMER CODE", "TELEPHONE" etc.

- **DeCS Server**. Application developed by Bireme using the IsisScript language to manage the database of health descriptors (DeCS).

- **Descriptor**. Embodies a concept accepted in a controlled vocabulary (like a thesaurus.)

- **Electronic Format**. Any form of storage, retrieval or presentation of information that may be transmitted on-line or recorded in magnetic or optical media.

- **Field**. *See* Database.

- **File**. In computing, a set of data that may be saved into some type of storing device. The data files are created by applications, such as a text processor for example.

- **ISO Format (of files)**. Standard established by the ISO to allow the exchange of data between institutions, networks and users.

- **LILACS Format**. A bibliographic description format established by BIREME, based on the UNISIST Reference Manual for Machine-readable Bibliographic Descriptions.

- **LILDBI-Web**. Web version of the "LILACS Bibliographic Description and Indexing" system.

- **Methodology**. Set of rules and conventions used to standardize a process or the production of a source of information.

- **PDF**. File format developed by Adobe whose objective is to maintain the presentation format of a document designed for printing when this document is stored in digital media.

- **PubMed**. Service of the National Library of Medicine that includes over 15 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s. PubMed includes links to full text articles and other related resources.

- **SGML**. Metalanguage standard of the ISO (International Organization for Standardization) used for the definition of languages of marking of electronic texts, making possible the interchange and the distribution of documents in the most varied formats, from one same source of data.

- **TCP/IP Protocol**. Standard that defines the method of communication between digital equipment. It employs a single number of identification.

- **Thematic area**. Specific set of information on the subject matter of a VHL which allows user topic-based navigation.

- **URL**. Standard defined for the addressing of data contents via the TCP/IP protocol. Internet browsers use the URL to access Web pages.

- **XML**. Language created to allow the arrangement of data in a structured and hierarchical manner, thus facilitating data communication between different systems and platforms.

- **XSL**. Language created to allow the navigation, selection and capture of data of an XML file.

Appendix A – Indexing Techniques

For IAH to carry out a search in an ISIS database, it is necessary to perform an inversion of the data using an FST file (Field Select Table). FST files consist of one or more lines divided into three segments:

1. a field identifier (tag)
2. an indexing technique
3. a format for extraction of data, in the CDS/ISIS formatting language

The indexing techniques define the processes which are performed on the data generated by the format.

CDS/ISIS offers nine indexing techniques, identified by a single-digit code, as explained below:

- Technique 0 (zero)

  Constructs a term from each line extracted by the format. This technique is generally used for indexing internal fields or subfields. However, note that CDS/ISIS constructs terms from lines and not fields. So you should realise that CDS/ISIS considers the output of the format as a string of characters in which the fields are no longer identifiable.

  Therefore, it is the responsibility of the user to produce the correct data through the format, especially when indexing repeatable fields and/or more than one field. In other words, when using this technique, verify that the extraction format for data produces as output a line for each term that should be indexed.

- Technique 1

  Constructs a term from each subfield or line extracted by the format considering delimiters. Since CDS/ISIS looks for subfield delimiters in the output of the format for the technique to function correctly, the format should specifiy **proof mode** (or no mode, since proof is the default) which retains the subfield delimiters in the output.

  Recall that the modes “head” and “data” substitute the subfield delimiters with punctuation marks. Observe also that technique 1 is an extension of technique 0.

- Technique 2

  Constructs a term form each term or phrase included between **<** and **>** (less than and greater than). It does not index any text except between the characteres **<** and **>**. Note that this technique requires the **proof mode** because the other modes remove the characters **<** and **>**.

  E.g.

  “Report describing a <university course> on <training in documentation> in an African <library school>” produces the following index terms with this technique:

  - university course
  - training in documentation
  - library school

- Technique 3

  Executes the same processing as technique 2, except that the terms are included between slashes (/ ... /).

  E.g.

  “Report describing a /university course/ on /training in documentation/ in an African /library school/” produces the following index terms with this technique:

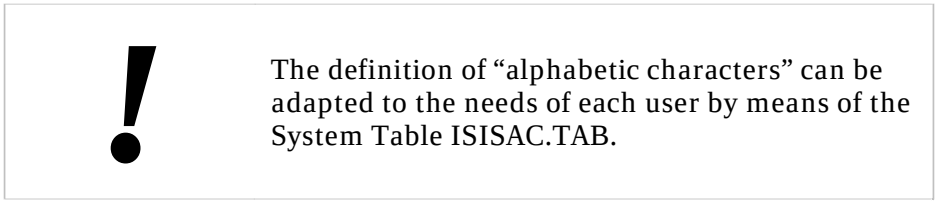
  - university course
  - training in documentation
  - library school

- Technique 4

  Constructs a term from each word of the text extracted by the format. By “a word” is meant a continuous sequence of alphabetic characters.

  Observe that when you use this technique to index a database with subfield delimiters, you should specify the “head” or "data" mode (mhl or mdl) in the corresponding format for substituting the subfield delimiter according to the rules of that mode. Otherwise, the alphabetic codes of the subfield are considered as part of a word.

  Also it is advisable to use the “head” or “data” mode if the field that will be indexed may contain file information, in case the form of presentation of the field is ignored.



- Techniques 5, 6, 7 and 8

  Indexing techniques 5, 6, 7 and 8 operate in a similar way to techniques 1, 2, 3 and 4, respectively, but differ in the application of prefixes to the extracted terms.

  The specification of a prefix is an unconditional literal using the general form:

  ```
  'dprefixd',<CDS/ISIS format>
  ```

  in which:

d	is a delimiter character not used as part of the prefix
prefix	is the string of characters
<CDS/ISIS format>	is the extraction format for data in CDS/ISIS

  For example:

  To prefix the words of the field 24 with "TI_", you should load an FST containing the following declaration:

  ```
  24   8   '#TI_#',v24
  ```

  in which:

Format	Description
'#TI_#'	unconditional literal
#	delimiter of the prefix
TI_	prefix to be used
v24	CDS/ISIS extraction format

  Table 8: Example of extraction format from fields in the FST

  For the sake of comparison, we may observe an FST containing extraction rules with and without the use of prefixes:

Without prefix	With prefix
70 0 mhu,(v70/)	70 0 mhu,('AU ',v70/)
24 4 mhu, v24	24 8 mhu,'/TI /',v24
69 2 v69	69 6 '/KW /',v69

  Table 9: Comparison of indexing techniques

  It is important to note that the technique 0 (zero) is unique in that the use of a prefix is an option. Table 4 shows the relation between the different indexing techniques and the use of prefixes.

Without prefix	With prefix	Effect of the technique
0	0	Whole field
1	5	Subfield
2	6	Terms delimited by < and >
3	7	Terms delimited by /and /
4	8	Word by word

Short example of an FST without prefixes for a database compatible with the LILACS format

```
06 0 (v06/)
12 4 (v12|%|/)
13 4 (v13|%|/)
18 4 (v18|%|/)
19 4 (v19|%|/)
25 4 (v25|%|/)
40 1 (v40/)
```

Short example of definitions (<base>.def file) compatible with the FST without prefixes

```
INDEX Tw=^pPalavras^ePalabras^iWords^d*
INDEX Ti=^pPalavras do título^ePalabras of the título^iTitle
words^s12,13,18,19,25
INDEX La=^pLanguage^eLanguage^iLanguage^s40^tshort
INDEX Nb=^iBibliographic level^eNivel bibliographic^pNível
bibliographic^s6^tshort^fA^gGIZMONB
```

Short example of an FST with prefixes for a database compatible with the LILACS format

```
06 0 (|TW_|v06/)
12 8 ("|TW_|"d12,v12|%|/)
13 8 ("|TW_|"d13,v13|%|/)
18 8 ("|TW_|"d18,v18|%|/)
19 8 ("|TW_|"d19,v19|%|/)
25 8 ("|TW_|"d25,v25|%|/)
12 8 ("|TI_|"d12,v12|%|/)
13 8 ("|TI_|"d13,v13|%|/)
18 8 ("|TI_|"d18,v18|%|/)
19 8 ("|TI_|"d19,,v19|%|/)
25 8 ("|TI_|"d25,v25|%|/)
40 5 ("|LA_|"d40,v40|%|/)
```

```
06 0 (|NB_|v06/)
```

Short example of definitions (<base>.def file) compatible with the FST with prefixes

```
INDEX Tw=^pPalavras^ePalabras^iWords^d*^xTW ^uTW_^yDATABASE^mTW_
INDEX Ti=^pPalavras do título^ePalabras of the título^iTitle words^xTI
^uTI_^yDATABASE^mTI_
INDEX La=^pLanguage^eLanguage^iLanguage^xLA ^uLA_^yDATABASE^mLA_^tshort
INDEX Nb=^iBibliographic level^eNivel bibliographic^pNível bibliographic^xNB
^uNB_^yDATABASE^mNB_^tshort^fA^gGIZMONB
```

Appendix B – Fields of the LILACS format

[01] – Code of the Centre
[02] – Identification Number
[03] – Location of the Document
[04] - Database
[05] - Type of Literature
[06] - Level of Processing
[07] – Call Number
[08] – Electronic Medium
[10] – Personal Author (Analytic level)
[11] – Corporate Author (Analytic level)
[12] - Title (Analytic level)
[13] - Title Translated into English (Analytic level)
[14] - Pages (Analytic level)
[16] – Personal Author (Monograph level)
[17] – Corporate Author Institutional (Monograph level)
[18] - Title (Monograph level)
[19] - Title Translated into English (Monograph level)
[20] - Pages (Monograph level)
[21] - Volume (Monograph level)
[23] – Personal Author (Collection level)
[24] – Corporate Author (Collection level)
[25] - Title (Collection level)

[27] – Total Number Total of Volumes (Collection level)
[30] - Title (Series level)
[31] - Volume (Series level)
[32] - Number of Part (Series level)
[35] - ISSN
[38] – Descriptive Information
[40] - Language of the Text
[41] - Language of the Abstract
[50] - Thesis and Dissertation – Institution to which it is presented
[51] – Thesis and Disertation - Title of Degree
[52] - Event – Sponsoring Institution
[53] - Event - Name
[54] - Event - Date
[55] - Event – Normalized Date
[56] - Event - Town
[57] - Event - Country
[58] - Project – Sponsoring Institution
[59] - Proyect - Name
[60] - Project - Number
[61] - Noted
[62] - Editor
[63] - Edition
[64] - Date of Publication
[65] – Normalized Date
[66] – Town of Publication
[67] - Country of Publication
[68] - Symbol
[69] - ISBN
[71] - Type of Publication
[72] - Number Total of References
[74] – Date Range (from)
[75] - Date Range (to)
[76] – Pre-codified Descriptor
[78] – Person as Subject
[82] – DeCS Region Number
[83] - Abstract
[84] - Date of Entry on the Database
[87] – Primary Descriptor
[88] – Secondary Descriptor
[91] - Date of processing
[92] - Documentalist

[98] – Related Record (Monograph, Grey literature, Collection, Series or Thesis)

[101] – Related Record (Event)

[102] – Related Record (Project)

[899] – Version of Software

Appendix C – Fields of the SeCS format (Catalogue)

[001] - database name
[005] - type of literature
[006] - level of processing
[010] - code of the centre
[020] - national code
[030] - number of record
[040] - related system
[050] - state of publication
[100] - title of the publication
[110] - subtitle
[120] - desig. Section/part
[130] - title section/part
[140] - statement of responsibility
[150] - abbreviated title
[230] - variant title - parallel
[240] - variant title - other
[301] - starting year
[302] - starting volume
[303] - starting part
[304] - ending year

[305] - ending volume
[306] - ending part
[310] - country of publication
[320] - state (UF)
[330] - level of the publication
[340] - alphabet of the title
[350] - languages of the text
[360] - languages of the abstract
[380] - current frequency
[400] - current ISSN
[410] - coden
[420] - journal code (Medline)
[430] - classification
[440] - descriptors
[450] - range of indexing
[480] - name of the commercial editor
[490] - town of publication
[500] - date
[510] - title – has edition in another language
[520] - title – is edition in another language
[530] - title – has subseries
[540] - title – is subseries
[550] - title – has supplement/insertion
[560] - title – is suplement/insertion
[610] - previous title - continuation
[620] - previous title – partial continuation
[650] –previous title - absorbs
[660] - previous title – absorbs partly
[670] - previous title – subdivision of
[680] - previous title – fusion of
[710] - later title – continued by
[720] - later title – continued in part
[750] - later title – absorbed by
[760] - later title – absorbed in part
[770] - later title – is subdivided
[780] - later title – is merged with
[790] - later title – is formed from
[900] - general notes
[940] - Date of entry
[950] - documentalist
[098] - collection

Appendix D – Search fields of the LILACS database

Field	Description
TW	Words
TI	Words from the title
AB	Words from the abstract
AU	Author
AI	Corporate author
MH	Descriptor
CT	Limits
LA	Language
PD	Country, year of publication
TA	Journal
TL	Type of literature

Field	Description
NB	Bibliographic level
MS	Monograph in series
PT	Type of publication
CF	Conference
ID	Unique identifier
LO	Localization
FE	Electronic medium
DT	Date of entry

Appendix E – IAH Search Forms

Free

The following example includes a free search form for a LILACS database:

```
<!-- IAH -->
<form action="http://meu-servidor/cgi-bin/wxis.exe/iah/" method="POST">
      <input type="hidden" name="IsisScript" value="iah/iah.xic">
      <input type="hidden" name="lang" value="p">
      <input type="hidden" name="base" value="LILACS">
      <input type="hidden" name="nextAction" value="extsearch">
      <input type="hidden" name="form" value="F">
      <table border="0" width="600" cellspacing="0" cellpadding="0">
      <tr><td colspan="5"> </td></tr>
      <tr>
            <td width="50"> </td>
            <td width="550"><em><font face="verdana" size="2">Entre uma ou mais
palavras</font></em></td>
      </tr>
      <tr>
            <td width="50"> </td>
            <td width="500"><input type="text" size="50" maxlength="150"
name="exprSearch" value="">  </td>
      </tr>
      <tr>
            <td width="50"> </td>
            <td width="500"><font face="Verdana" size="1">
                <input type="radio" name="conectSearch" value="and"
checked>Todas as palavras <b>(AND)</b>   
                <input type="radio" name="conectSearch" value="or"  >Qualquer
palavra <b>(OR)</b>
```

```
                </font>
            </td>
        </tr>
        <tr><td colspan="2"> </td></tr>
        <tr>
            <td colspan="2" align="center"><input type="submit"
value="Pesquisa"></td>
        </tr>
        </table>
        </center>
</form>
<!-- IAH -->
```

Advanced

The example below includes an advanced search form for a LILACS database.

```
<!-- IAH -->
<form action="http://meu-servidor/cgi-bin/wxis.exe/iah/" method="POST">
        <input type="hidden" name="IsisScript" value="iah/iah.xic">
        <input type="hidden" name="lang" value="p">
        <input type="hidden" name="base" value="LILACS">
        <input type="hidden" name="nextAction" value="extsearch">
        <input type="hidden" name="form" value="B">
<center>
<table border="0" width="550" align="center" cellspacing="0" cellpadding="0">
<tr>
          <td width="30"> </td>
          <td width="80"> </td>
          <td width="270"><i><font face="verdana"
size="2">Pesquisar</font></i></td>
          <td width="235"><font face="verdana" size="2"><i>no
campo</i></font></td>
          <td width="62"> </td>
</tr>
<tr>
           <td width="30"><font face="Verdana" size="2"><b>1</b></font></td>
                    <td width="80">
                             <input type=hidden name="conectSearch"
value="init"> 
           </td>
           <td width="270" align="left">
                             <input type="text" size="32" maxlength="256"
name="exprSearch" value="">
           </td>
           <td width="235">
              <select name="indexSearch" size="1">
                  <option value="^nTw^pPalavras^ePalabras^iWords^xALL ^yDATABASE"
>Palavras</option>
                  <option value="^nTi^pPalavras do título^ePalabras del
título^iTitle words^x/12,13,18,19,25^yDATABASE" >Palavras do título</option>
                  <option value="^nDe^pDescritor de assunto^eDescriptor de
asunto^iSubject descriptor^x/76,78,87,88,871,881^yDATABASE" >Descritor de
assunto</option>
```

```
                <option value="^nAu^pAutor^eAutor^iAuthor^x/10,16,23^yDATABASE"
>Autor</option>
                <option
value="^nLa^pIdioma^eIdioma^iLanguage^x/40^tshort^yDATABASE" >Idioma</option>
                <option value="^nId^iUnique identifier^eIdentificador
único^pIdentificador único^x/2^yDATABASE" >Identificador único</option>
                <option value="^nAi^iInstitutional author^eAutor
institucional^pAutor institucional^x/11,17,24^yDATABASE" >Autor
institucional</option>
                <option value="^nPd^iCountry, year publication^ePaís, año de
publicación^pPaís, ano de publicação^x/8^tshort^fA^yDATABASE" >País, ano de
publicação</option>
                <option
value="^nCf^iConference^eConferencia^pConferência^x/9^fA^yDATABASE"
>Conferência</option>
                <option value="^nTl^iType of literature^eTipo de
literatura^pTipo de literatura^x/5^tshort^fA^yDATABASE" >Tipo de
literatura</option>
                <option value="^nNb^iBibliographic level^eNivel
bibliográfico^pNível bibliográfico^x/6^tshort^fA^yDATABASE" >Nível
bibliográfico</option>
             </select>
         </td>
         <td width="62" align="left"> </td>
</tr>
<tr>
       <td width="30"><font face="Verdana" size="2"><b>2</b></font></td>
         <td width="80">
               <select name="conectSearch" size=1>
                        <option value="and" >and
                        <option value="or"  >or
                        <option value="and not" >and not
                </select>
         </td>
         <td width="270" align="left">
                  <input type="text" size="32" maxlength="256"
name="exprSearch" value="">
         </td>
         <td width="235">
            <select name="indexSearch" size="1">
                <option value="^nTw^pPalavras^ePalabras^iWords^xALL ^yDATABASE"
>Palavras</option>
                <option value="^nTi^pPalavras do título^ePalabras del
título^iTitle words^x/12,13,18,19,25^yDATABASE" >Palavras do título</option>
                <option value="^nDe^pDescritor de assunto^eDescriptor de
asunto^iSubject descriptor^x/76,78,87,88,871,881^yDATABASE" >Descritor de
assunto</option>
                <option value="^nAu^pAutor^eAutor^iAuthor^x/10,16,23^yDATABASE"
>Autor</option>
                <option
value="^nLa^pIdioma^eIdioma^iLanguage^x/40^tshort^yDATABASE" >Idioma</option>
                <option value="^nId^iUnique identifier^eIdentificador
único^pIdentificador único^x/2^yDATABASE" >Identificador único</option>
                <option value="^nAi^iInstitutional author^eAutor
institucional^pAutor institucional^x/11,17,24^yDATABASE" >Autor
institucional</option>
```

```
                <option value="^nPd^iCountry, year publication^ePaís, año de
publicación^pPaís, ano de publicação^x/8^tshort^fA^yDATABASE" >País, ano de
publicação</option>
                <option
value="^nCf^iConference^eConferencia^pConferência^x/9^fA^yDATABASE"
>Conferência</option>
                <option value="^nTl^iType of literature^eTipo de
literatura^pTipo de literatura^x/5^tshort^fA^yDATABASE" >Tipo de
literatura</option>
                <option value="^nNb^iBibliographic level^eNivel
bibliográfico^pNível bibliográfico^x/6^tshort^fA^yDATABASE" >Nível
bibliográfico</option>
             </select>
         </td>
              <td width="62" align="left"> </td>
</tr>
<tr>
         <td width="30"><font face="Verdana" size="2"><b>3</b></font></td>
         <td width="80">
                     <select name="conectSearch" size=1>
                            <option value="and" >and
                            <option value="or"  >or
                            <option value="and not" >and not
                  </select>
        </td>
        <td width="270" align="left">
                      <input type="text" size="32" maxlength="256"
name="exprSearch" value="">
        </td>
         <td width="235">
            <select name="indexSearch" size="1">
                <option value="^nTw^pPalavras^ePalabras^iWords^xALL ^yDATABASE"
>Palavras</option>
                <option value="^nTi^pPalavras do título^ePalabras del
título^iTitle words^x/12,13,18,19,25^yDATABASE" >Palavras do título</option>
                <option value="^nDe^pDescritor de assunto^eDescriptor de
asunto^iSubject descriptor^x/76,78,87,88,871,881^yDATABASE" >Descritor de
assunto</option>
                <option value="^nAu^pAutor^eAutor^iAuthor^x/10,16,23^yDATABASE"
>Autor</option>
                <option
value="^nLa^pIdioma^eIdioma^iLanguage^x/40^tshort^yDATABASE" >Idioma</option>
                <option value="^nId^iUnique identifier^eIdentificador
único^pIdentificador único^x/2^yDATABASE" >Identificador único</option>
                <option value="^nAi^iInstitutional author^eAutor
institucional^pAutor institucional^x/11,17,24^yDATABASE" >Autor
institucional</option>
                <option value="^nPd^iCountry, year publication^ePaís, año de
publicación^pPaís, ano de publicação^x/8^tshort^fA^yDATABASE" >País, ano de
publicação</option>
                <option
value="^nCf^iConference^eConferencia^pConferência^x/9^fA^yDATABASE"
>Conferência</option>
                <option value="^nTl^iType of literature^eTipo de
literatura^pTipo de literatura^x/5^tshort^fA^yDATABASE" >Tipo de
literatura</option>
```

```
                <option value="^nNb^iBibliographic level^eNivel
bibliográfico^pNível bibliográfico^x/6^tshort^fA^yDATABASE" >Nível
bibliográfico</option>
             </select>
         </td>
        <td width="62" align="left"> </td>
</tr>
<tr>
        <td colspan="6"> </td>
</tr>
<tr>
        <td colspan="6" align="center">
                 <input type="reset" value = " Limpa
">     
                <input type="submit" value = "Pesquisa">
        </td>
</tr>
</table>
</center>
</form>
<!-- IAH -->
```

Appendix F – How to construct IAH URLs with parameters

It is possible to construct a URL which accesses directly the search function of IAH. Below is the description of how to construct manually a typical URL.

1. Start the URL with the name of your domain in which IAH is installed and the search command :

```
http://meu-server/cgi-bin/wxis.exe/iah/?IsisScript=iah/iah.xic&nextAction=lnk&
...
```

2. Add to the URL the paameters for the database to be searched and the language of search :

```
...&base=BASE&lang=LANGUAGE&...
```

   where BASE should be the name of the database configured during the installation, for example: LILACS

   and LANGUAGE should be: p (for Portuguese), e (for Spanish) or i (for English).

3. Specify the search expression:

```
...&exprSearch=SEARCH&indexSearch=[INDEX]&conectSearch=[OPERATOR]&....
```

   where ***SEARCH*** should be a boolean expression and ***INDEX*** can contain the specification of the field (for example DE).

You can create a boolean search expression with a maximum of three different fields, for which you should use the parameter **concectsearch** and state in OPERATOR one of the boolean operators available (AND, OR or AND NOT).

E.g.

4. To search for the terms "health" and "public" in the LILACS database:

nextAction=lnk&base=LILACS&lang=p&exprSearch=health+AND+public

5. To search the term "hepatic cirrhosis" in the field of the subject headings in the MEDLINE database:

nextAction=lnk&base=MEDLINE&lang=p&exprSearch=cirrhosis+hepatic&indexSearch=MH

6. To search for "hepatitis" in the field of words and “English” in the language field in the MEDLINE database:

nextAction=lnk&base=MEDLINE&lang=p&exprSearch=hepatitis&indexSearch=TW&conectSearch=AND&exprSearch=englsih&indexSearch=LA

Appendix G – Fields of the interface

Tag	Subfield	Description
5000		environment variables
	^a	current action
	^b	path_database
	^c	path_cgi-bin
	^d	path_data
	^s	name of the script
	^p	alternative PATH_TRANSLATED
	^f	definition file for the alternative application
	^l	information about the local server
	^t	temporary directory
5001		nextAction
	^s	status
5002		path for the directory of images
5003		name of the database
	^*	definition file
	^d	drive for "cipchange"
	^n	New – current altered database for executing function LoadBaseDef
5004		function baseResubmit
5005		formats available
	^n	Logical name
	^p	description in Portuguese
	^e	description in Spanish
	^i	description in English

Tag	Subfield	Description
5006		appearance
	^c	colour of background of the body
	^i	colour of background of the image
	^t	colour of text of the body
	^l	colour of links in the text
	^b	colour of the navigation bar
	^e	e-mail address of the administrador of the interface
	^m	selector of multi-language (ON/OFF)
	^r	selector of sample of results in reverse mode (ON/OFF)
	^v	colour of visited links in the text
5007		function navBar (navigation bar)
5008		number of records noted in the search
5009		name of the display format
5010		help information
	^n	identification of the type of information (help/explanatory note)
	^v	name of the HTML file
5011		identifier of sensitive help
	^h	help for current status of the system
	^n	note for current status of the system
5012		gizmo database for conversion/decoding
	^g	conversion (gizmo)
	^d	decoding
5013		name of the user
	^*	code of the user
	^m	mfn in the user database
5014		forms available (F,B,A)
5015		direct access to a specified index
5018		databaseFeatures
5020		database of execution log
5021		language
5030		logo (image)
5031		logo (URL)
5040		head (image)
5041		head (URL)
6000		form
6001		variable conectSearch
6002		variable exprSearch
6003		variable indexSearch
	^l	line of the form
	^n	name of the index
	^x	prefix
	^y	inverted file
	^u	prefix not inverted
	^t	type (kwic,short)
	^g	gizmo (applied gizmo in the index terms)
	^s	list of tags for search
6099		list of indexes

Tag	Subfield	Description
6100		Index selected
	^l	line of the form
	^n	name of the index
	^x	prefix of the index
	^y	inverted file
	^u	prefix not inverted
	^t	type (kwic,short)
	^g	gizmo (applies to gizmo not index terms)
	^s	list of tags for search
6111		gizmoIndex tag 1
6112		gizmoIndex tag 2
6102		termsFromIndex
6121		variable kwicMode
6122		variable indexRoot
6205		variable pagesRange
6209		list of options
6210		Selected item from list
	^m	mfn
6211		list of results Hit-list
6300		options of XML
6301		table XML
6302		formato xmlPFT
6400		related data
	^m	mfn
7000		limit of the search (restriction of the expression)